

REMARKS

Claims 1-5, 10, 13-15, 21, 26-29, 35, and 36 are pending and have all been rejected under 35 U.S.C. §103(a) as being unpatentable over Grube et al. (US 6,031,455) in view of Lauber et al. (USPGP 2004/0090950) and in further view of Wade et al. (US 5,552,776). Applicants respectfully request reconsideration of claims 1-5, 10, 13-15, 21, 26-29, 35, and 36 in view of the remarks set forth below.

Patentability over Grube et al.

Claim 1 has been rejected under 35 U.S.C. §103(a) over Grube et al. in view of Lauber et al. and Wade et al. Claim 1 recites an apparatus comprising a remote sensor and a control board including a microprocessor and a plurality of serial communication ports, one of the serial communication ports providing a link to the remote sensor, the control board configured to receive and process the data from a variety of types of data collection devices, including the remote sensor.

In the previous Amendment, the Applicants presented arguments that the sensor 37 of Grube et al. does not read on a remote sensor, and that further, Grube et al. teaches away from substituting a remote sensor for sensor 37. In the new grounds of rejection, the Examiner has apparently stood by the assertion that Grube et al. teaches a remote sensor, though the Examiner has not explicitly stated as much. Applicants reach this conclusion because the Examiner states that the only limitation of claim 1 that is not taught by the combination of Grube et al. in view of Lauber et al. is the control board including a microprocessor and a plurality of serial communication ports, one of the serial communication ports providing a link to the remote sensor (Office action, page 2) and the Examiner previously equated the sensor 37 of Grube et al. with the remote sensor of claim 1 in the Office action mailed on April 26, 2006 (page 2) and has never suggested otherwise.

MPEP §707.07(f) is entitled "Answer All Material Traversed" and states "[w]here the applicant traverses any rejection, the examiner should, if he or she repeats the rejection, take note

of the applicant's argument and answer the substance of it." Further, the section provides an Examiner Note in conjunction with form paragraph 7.38 (Arguments Are Moot Because of New Ground(s) of Rejection) that explains "[t]he examiner must, however, address any arguments presented by the applicant which are still relevant to any references being applied." Here, the arguments that the sensor 37 of Grube et al. does not read on the remote sensor of claim 1, and that Grube et al. teaches away from substituting a remote sensor for sensor 37, are both still quite relevant to the references being applied. Accordingly, it is improper to simply dismiss these arguments as being moot, and the Examiner must address them.

Applicants further point out that MPEP §706.07 requires that "[i]n making the final rejection, all outstanding grounds of rejection of record should be carefully reviewed, and any such grounds relied on in the final rejection should be reiterated. *They must also be clearly developed to such an extent that applicant may readily judge the advisability of an appeal...*" (emphasis added). Also, "[b]efore final rejection is in order a clear issue should be developed between the examiner and applicant." Unless the Examiner addresses the substance of the Applicants' arguments noted above, the Applicants cannot readily judge the advisability of an appeal because the issues of whether the sensor 37 of Grube et al. reads on the remote sensor of claim 1, and whether Grube et al. teaches away from substituting a remote sensor for sensor 37 have not been fully developed. Absent the Examiner's answer to these arguments, a subsequent Office action relying on the same grounds of rejection cannot properly be made final.

In view of the above, the Applicants respectfully request that the Examiner either accept or rebut the Applicants' arguments concerning the scope of the term "remote sensor" and the teachings of Grube et al. with respect to remote sensors. While the Applicants appreciate the time limitations that the Examiner is constrained by, towards the goal of developing clear issues for appeal, the Applicants would appreciate a few thoughtful sentences of explanation should the Examiner seek to rebut the Applicants' arguments.

Even if the Examiner can successfully rebut the Applicants' positions regarding the scope of the term "remote sensor" and the teachings of Grube et al. with respect to remote sensors, claim 1 is patentable for still further reasons. Claim 1 recites a control board including a

microprocessor and a plurality of serial communication ports, one of the serial communication ports providing a link to the remote sensor. As now admitted by the Examiner, Grube et al. in view of Lauber et al. “do not teach a control board including a microprocessor and a plurality of serial communication ports.” (Office action page 2). The Examiner nevertheless contends that “it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the control board, microprocessor, and communication ports” of Wade et al. into the system of Grube et al. in view of Lauber et al. for the reason that it “would have facilitated transmission/reception for [the] purpose of monitoring the computer devices in the system by allowing faster communication between in [sic] the computer devices and the microprocessor.” (Office action page 2). Applicants respectfully disagree that Wade et al. teaches a control board including a microprocessor and a plurality of serial communication ports, and also disagree that one of ordinary skill in the art would incorporate the control board, microprocessor, and serial communication ports of Wade et al. into the system of Grube et al. in view of Lauber et al.

To begin with, the Applicants disagree that Wade et al. teaches a control board that includes a microprocessor and a plurality of serial communication ports, as required by claim 1. Regarding the teaching of Wade et al., the Examiner has cited to column 15 lines 29-58 and claim 24. The portion of column 15 referred to by the Examiner pertains to FIG. 9, reproduced below. It is apparent that in Wade et al. the control board 910 includes neither the microprocessor controller 921 nor the serial communication ports 943. Applicants note that FIG. 9 of Wade et al. shows a power input connector 912 within the box that designates the control board 910 and explains that “CPU board 910 contains a power input connector 912” (col. 15 lines 32-34). On the other hand, FIG. 9 of Wade et al. shows microprocessor controller 921 separated from the control board 910 by power control circuitry 926. Although Wade et al. does not specifically address the relationship between the control board 910 and the microprocessor controller 921, Wade et al. does describe, for example, the relationship between the power input connector 912 and the power control circuitry 926 as “connected” (col. 15 lines 36-37) where the two components are joined in FIG. 9 by a line 939 of communication. Therefore, the lines 939 of communication in FIG. 9 show how components are connected to one another, whereas sub-components are shown as residing within the components they comprise, such as options table 901 within non-volatile memory 924. As microprocessor controller 921 is connected to power

control circuitry 926 which is connected to control board 910, and not shown or described as being included as part of the control board 910, it follows that in Wade et al. the control board 910 does not include the microprocessor controller 921. For similar reasons, the control board 910 clearly does not include the serial communication ports 943.

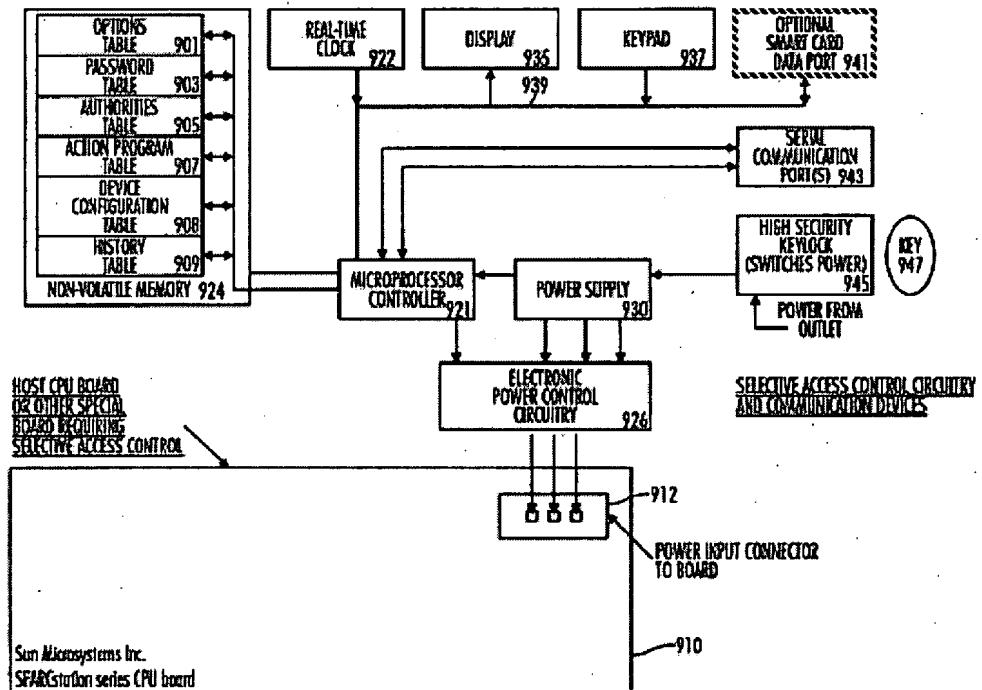
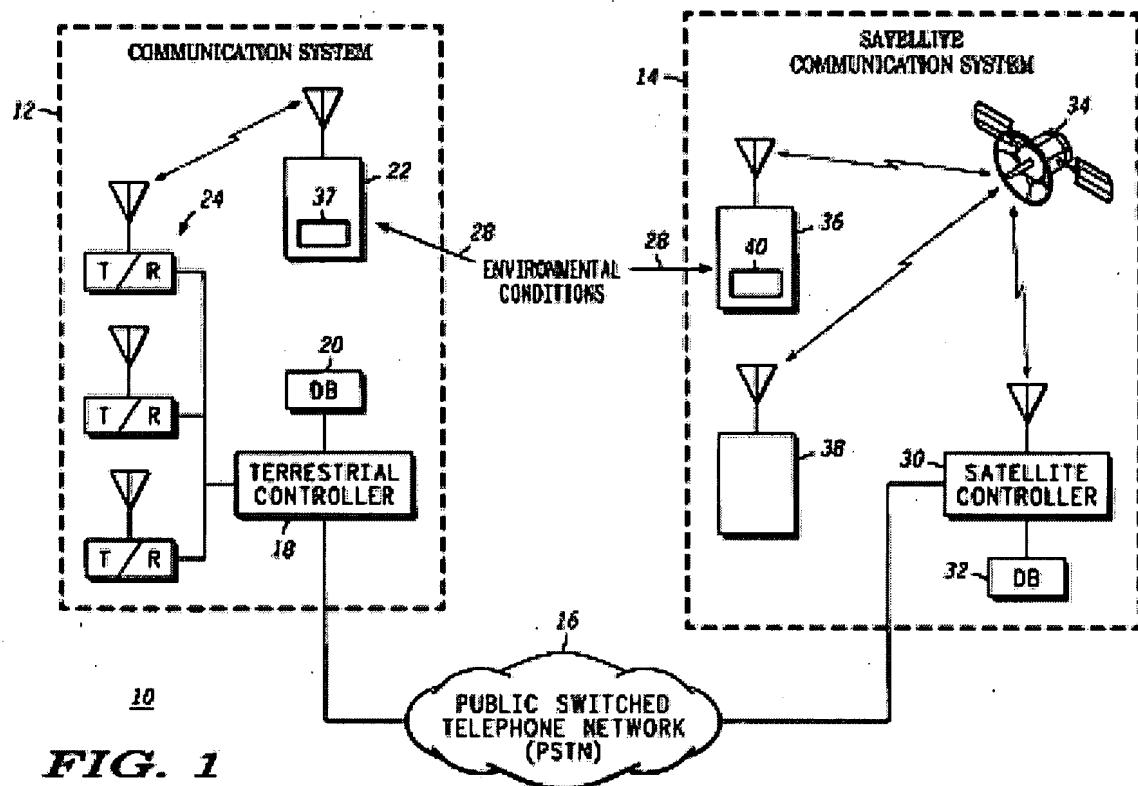


FIG. 9

Applicants also disagree that one of ordinary skill in the art would incorporate the control board, microprocessor, and serial communication ports of Wade et al. into the system of Grube et al. in view of Lauber et al. Taking a step back for a moment, it is not entirely clear what modifications to the system of Grube et al. the Examiner is suggesting would be obvious in view of Lauber et al., before even considering the further modification in view of Wade et al. In the April 26, 2006 Office action (at page 3) the Examiner argued that “it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a [sic] the control board and microprocessor (144) of Lauber into the processing unit of Grube” and in the present Office action the Examiner admits that Grube et al. in view of Lauber et al. “do not teach a control board including a microprocessor and a plurality of serial communication ports.” (Office action page 2). With respect to claim 1, the Examiner has not previously relied upon Lauber et al. for any other teaching other than for a control board including a microprocessor and

a plurality of serial communication ports. Applicants are left to assume that the Examiner is no longer relying on Lauber et al. with respect to claim 1, and will therefore treat the rejection of claim 1 as a rejection under 35 U.S.C. §103(a) over the combination of Grube et al. in view of Wade et al. If this is not the Examiner's position, Applicants respectfully request clarification as to the teaching of Lauber et al. relied up on with respect to claim 1.

If view of the above presumed understanding of the Examiner's position, Applicants turn to the Examiner's proposed modification of the system of Grube et al. in view of Wade et al. Specifically, the Examiner has asserted that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the control board, microprocessor, and communication ports of Wade into the system of Grube" (Office action page 2) without particularly elucidating anything about the proposed modification to Grube et al. FIG. 1 of Grube et al. is reproduced below.



Applicants are left to ponder whether the Examiner is here suggesting that “incorporating” means replacing the processing unit 70 (see FIG. 3) of the terrestrial controller 18 with the control board, microprocessor, and communication ports of Wade et al., or adding the control board, microprocessor, and communication ports of Wade et al. to the processing unit 70. Perhaps, on the other hand, the Examiner is suggesting replacing the processing unit 50 (see FIG. 2) of communication device 22 with the control board, microprocessor, and communication ports of Wade et al., or adding the control board, microprocessor, and communication ports of Wade et al. to the processing unit 50. Maybe the Examiner has yet something else in mind.

Applicants note that, per 37 C.F.R. §104(c)(2), “[w]hen a reference is complex or shows or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable. The pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified.” Moreover, a rejection violates 35 U.S.C. §132 if it “is so uninformative that it prevents the applicant from recognizing and seeking to counter the grounds for rejection,” (*Chester v. Miller*, 906 F.2d 1574, 1578, 15 USPQ2d 1333, 1337 (Fed Cir. 1990)). Here, Grube et al. is both complex, and shows an invention other than that claimed by the Applicants (else the Examiner presumably would have rejected claim 1 as being anticipated). Nevertheless, the particular parts of the system of Grube et al. that the Examiner believes would be obvious to modify, replace, or augment have not been designated. The lack of a clear explanation of the specific proposed modification of the system of Grube et al. renders the rejection so uninformative that it prevents the Applicants from recognizing and seeking to counter the grounds for rejection, and therefore violates 35 U.S.C. §132.

Nevertheless, Applicants will venture a guess that the Examiner is suggesting that it would be obvious to replace the processing unit 50 (see FIG. 2) of communication device 22 with the control board, microprocessor, and communication ports of Wade et al. In Grube et al. the communication devices 22 “may be cellular telephones, land mobile radios, portable radios” or basically any other portable communication device (col. 2 line 65 – col. 3 line 3) and FIGs. 1 and 2 of Grube et al. both show the sensor 37 as a component of the communication device 22. Wade et al., on the other hand, shows in FIG. 8 a sensor 271 configured to monitor microprocessor controller 220 and a serial communication port 243 to permit communication

between the microprocessor controller 220 and various external computing devices (col. 14 lines 50-52) and not the sensor 271. Although Wade et al. does not explicitly explain the function of the serial ports 943 in FIG. 9, Applicants assume that the function is the same as that of the serial communication port 243 of FIG. 8. In short, both Wade et al. and Grube et al. teach devices that include a sensor in communication with a microprocessor; while Wade et al. further provides serial ports 943, these serial ports 943 have nothing to do with the communication between the sensor 271 and the microprocessor controller 220. Nevertheless, the Examiner seems to be suggesting that it would be obvious to incorporate a serial port into the system of Grube et al. to provide the link to the sensor 37 when Wade et al. teaches that serial ports are provided to communicate with external computing devices and not with internal sensors.

Applicants also wish to address the specific motivation to combine the references that has been advanced by the Examiner, namely, that it “would have facilitated transmission/reception for [the] purpose of monitoring the computer devices in the system by allowing faster communication between the computer devices and the microprocessor.” (Office action pages 2-3). Applicants note that the references to “computer devices” appears to be out of context since in Grube et al. the sensor 37 communicates with the processing unit 50 which communicates with the terrestrial controller 18. Given this understanding of Grube et al., Applicants have interpreted the motivation advanced by the Examiner to be suggesting that transmission/reception for the purpose of monitoring the sensor 37 would be faster if the processing unit 50 was replaced by the control board, microprocessor, and communication ports of Wade et al. If this is indeed what the Examiner means, the Examiner has not explained why communications would be any faster between the sensor 37 and the microprocessor controller 220 of Wade et al. (which apparently is in place of the processing unit 50 in the hypothetical modified system of Grube et al.) if a serial port were employed between them, as compared to the original system of Grube et al. Applicants question why Wade et al. did not employ a serial port in such a manner if it would make for faster communications. Moreover, the Examiner did not cite any authority, such as a portion of Wade et al., for the proposition that it would have facilitated transmission/reception for the purpose of monitoring the computer devices in the system by allowing faster communication between the computer devices and the microprocessor. Also, none of this seems to address the value of also incorporating the control board of Wade et

al., unless it, too, somehow facilitates transmission/reception for the purpose of monitoring the sensor 37 in the system by allowing faster communication between the sensor 37 and the microprocessor. Lastly, Applicants note the Federal Circuit's emphasis in relying on *objective evidence* and making *specific factual findings* with respect to the motivation to combine (See *In re Lee*, 277 F.3d 1338, 1342-44 (Fed. Cir. 2002); see also MPEP §2143.01(I)), and argue that such evidence and findings are surely lacking in the present rejection.

Finally, Applicants provided an argument for the further patentability of dependent claim 15 in the previous Office action. As noted above, even where an examiner uses form paragraph 7.38 (Arguments Are Moot Because of New Ground(s) of Rejection) the examiner must address any arguments presented by the applicant which are still relevant to any references being applied. Here, the argument that it would not have been obvious to one of ordinary skill in the art at the time the invention was made to take a communication device 22 of Grube et al. which may be a cellular telephone, land mobile radio, portable radio, or other portable device and adapt communication device 22 to monitor a liquid level, is still relevant to the references being applied. Again, it is improper to simply dismiss this argument as being moot.

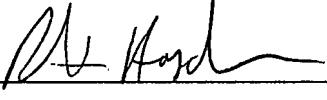
CONCLUSION

Therefore, in view of the above remarks this application is in condition for allowance, and the Examiner is respectfully requested to allow this application. The Examiner is invited to contact Applicants' undersigned representative regarding any issues that the Examiner feels are still outstanding.

Respectfully submitted,

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